UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,769	06/11/1999	WAYNE E. BRETL	7081	9810

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EXAMINER
RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/330,769	BRETL ET AL.
Office Action Summary	**Examiner**	**Art Unit**	
	Andy S. Rao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>5/26/06</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-88* is/are pending in the application.

    4a) Of the above claim(s) *See Continuation Sheet* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,11,16,17,28,29,32,37,42,46,47,56,57,59-62,64,70,74,75 and 81-88* is/are rejected.

7)☒ Claim(s) *18,19,30,31,39,58,66 and 76* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 2-10, 12-15, 20-27, 33-36, 38, 40, 41, 43-45, 48-55, 63, 65, 67-69, 71-73 and 77-80.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see the Appeal Brief, filed on 5/26/06, with respect to the

rejection(s) of the currently pending claim(s) have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new

ground(s) of rejection is made in view of newly discovered art.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

3.   Claims 1, 11, 16-17, 28-29, 32, 37, 42, 46-47, and 56-57 are rejected under 35

U.S.C. 102(e) as being in view of Schumann et al., (US Patent 6,078,328: hereinafter referred to

as "Schumann").

Schumann discloses an MPEG-on screen display coder (Schumann: figure 4, element

414) comprising: an on-screen display turn on device arranged to provide an output in response

to an on-screen display instruction (Schumann: column 1, lines 66-67; column 2, lines 1-20); and

an MPEG encoder coupled to the on-screen display turn on device and to process the dynamic

video frames with an on-screen display in response to the on-screen display instruction

(Schumann: column 4, lines 50-67), as in claim 1.

Regarding claim 11, Schumann discloses wherein the on-screen encoder processes the

dynamic video frames by overlaying (Schumann: column 6, lines 1-25), as in the claim.

Regarding claims 16 and 28, Schumann discloses processes dynamic video frames by the

MPEG encoder which is arranged to encode I frames with the on-screen display (Schumann:

column 5, lines 25-50), as in the claims.

Regarding claims 17 and 29, Schumann discloses wherein the MPEG encoder is arranged

to encode subsequent P frames by prediction based on the I frames (Schumann: column 5, lines

10-20), as in the claims.

Schumann discloses an on-screen display encoder (Schumann: column 1, lines 65-67;

column 2, lines 1-20), comprising: an MPEG encoder arranged to encode frames of a selected

program with an on-screen display (Schumann: column 4, lines 50-67); and a multiplexer

arranged to replace original frames with the encoded frames with the encoded frames for supply

to a digital television receiver (Schumann: column 5, lines 50-67: although no multiplexer is

specifically, a multiplexing operation of OSD data and video data is demultiplexed prior to being

sent to the decoder. Accordingly, a multiplexer is inherent, since the reverse process is

performed at the decoder), as in claim 32.

Regarding claim 42, Schumann discloses wherein the on-screen encoder processes the

dynamic video frames by overlaying (Schumann: column 6, lines 1-25), as in the claim.

Regarding claims 46 and 56, Schumann discloses processes dynamic video frames by the

MPEG encoder which is arranged to encode I frames with the on-screen display (Schumann:

column 5, lines 25-50), as in the claims.

Regarding claims 47 and 57, Schumann discloses wherein the MPEG encoder is arranged

to encode subsequent P frames by prediction based on the I frames (Schumann: column 5, lines

10-20), as in the claims.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 37 is rejected 35 USC 103(a) as being anticipated in view of Schumann et al., (US

Patent 6,078,328: hereinafter referred to as "Schumann") in view of Douche et al., (US Patent

6,005,629: hereinafter referred to as "Douche").

Schumann discloses an on-screen display encoder (Schumann: column 1, lines 65-67;

column 2, lines 1-20), comprising: an MPEG encoder arranged to encode frames of a selected

program with an on-screen display (Schumann: column 4, lines 50-67); and a multiplexer

arranged to replace original frames with the encoded frames with the encoded frames for supply

to a digital television receiver (Schumann: column 5, lines 50-67: although no multiplexer is

specifically, a multiplexing operation of OSD data and video data is demultiplexed prior to being

sent to the decoder. Accordingly, a multiplexer is inherent, since the reverse process is

performed at the decoder), as in claim 37. However, Schumann fails to disclose a time base

which is slaved to the original frames as in the claim. Douche discloses a time base insertion

module (Schumann: column 4, lines 35-50) which slaves OSD data to the original frames

(Douche: column 4, lines 1-20) in order to avoid synchronization issues (Douche: column 3,

lines 20-35). Accordingly, given this teaching, it would have been obvious for one of ordinary

skill in the art to incorporate the Douche time base insertion module to slave the OSD data to the

original data in order to avoid synchronization issues. The Schumann encoder now, incorporating

Douche's teaching of slaved time bases, has all of the features of claim 37.

6.   Claims 59-62, 70, 74-75, 81-88 are rejected 35 USC 103(a) as being anticipated in view

of Schumann et al., (US Patent 6,078,328: hereinafter referred to as "Schumann") in view of

Chen et al., (US Patent 5,917,830: hereinafter referred to as "Chen").

        Schumann discloses an on-screen display encoder (Schumann: column 1, lines 65-67;

column 2, lines 1-20), comprising: an MPEG encoder arranged to encode frames of a selected

program with an on-screen display (Schumann: column 4, lines 50-67); and a multiplexer

arranged to replace original frames with the encoded frames with the encoded frames for supply

to a digital television receiver (Schumann: column 5, lines 50-67: although no multiplexer is

specifically, a multiplexing operation of OSD data and video data is demultiplexed prior to being

sent to the decoder. Accordingly, a multiplexer is inherent, since the reverse process is

performed at the decoder), as in claims 59-60. However, Schumann fails to disclose adding

make-up packets such as null packets as specified. Chen discloses a transport processor for

splicing a main stream and an inserted stream (Chen: column 5, lines 16-67; column 6, lines 1-

33) which uses adding make-up packets such as null packets (Chen: column 7, lines 15-25;

column 12, lines 50-67; column 13, lines 1-32) in order to prevent discontinuities such as

overflow and underflow considerations in processing multiple streams (Chen: column 1, lines

55-67; column 2, lines 1-8). Accordingly, given this teaching it would have been obvious for one

of ordinary skill in the art to incorporate the Chen insertion of make-up packets such as null

packets in order to the Schumann on-screen display encoder in order to prevent discontinuities

such as overflow and underflow considerations in handling multiple streams. The Schumann on-

screen display encoder, now incorporating the Chen insertion of make-up packets such as null

packets, has all of the features of claims 59-60.

Regarding claim 61, the Schumann on-screen display encoder, now incorporating the

Chen insertion of make-up packets such as null packets, has wherein the packets are PMT

packets (Chen: column 6, lines 45-50), as in the claim.

Schumann discloses an MPEG on-screen display encoder (Schumann: column 1, lines

65-67; column 2, lines 1-20), comprising: an MPEG encoder arranged to encode frames of a

selected program with an on-screen display (Schumann: column 4, lines 50-67); and a

multiplexer arranged to replace original frames with the encoded frames with the encoded frames

for supply to a digital television receiver (Schumann: column 5, lines 50-67: although no

multiplexer is specifically, a multiplexing operation of OSD data and video data is demultiplexed

prior to being sent to the decoder. Accordingly, a multiplexer is inherent, since the reverse

process is performed at the decoder), as in claim 62. However, Schumann fails to disclose using

a buffer for receiving and buffering an MPEG transport data stream containing data frames of a

selected program and frames of non-selected program. Chen discloses a transport decoder which

discloses using a buffer for receiving and buffering an MPEG transport data (Chen: column 9,

lines 25-65) in order to process the syntax data of the transport stream prior splicing it with an

insertion stream (Chen: column 7, lines 60-67; column 8, lines 1-20). Accordingly, given this

teaching, it would have been obvious for one of ordinary skill in the art at the time of invention

to modify Schumann with the Chen buffering method in order to process the syntax of transport

stream prior to splicing it with an insertion stream. The Schumann MPEG on-screen display

encoder, now incorporating Chen's transport stream buffer has all of the features of claim 62.

Regarding claim 70, the Schumann MPEG on-screen display encoder, now incorporating

Chen's transport stream buffer discloses wherein the on-screen encoder processes the dynamic

video frames by overlaying (Schumann: column 6, lines 1-25), as in the claim.

Regarding claim 74, the Schumann MPEG on-screen display encoder, now incorporating

Chen's transport stream buffer discloses processes dynamic video frames by the MPEG encoder

which is arranged to encode I frames with the on-screen display (Schumann: column 5, lines 25-

50), as in the claim.

Regarding claim 75, the Schumann MPEG on-screen display encoder, now incorporating

Chen's transport stream buffer, discloses wherein the MPEG encoder is arranged to encode

subsequent P frames by prediction based on the I frames (Schumann: column 5, lines 10-20), as

in the claim.

Regarding claims 81-82, the Schumann MPEG on-screen display encoder, now

incorporating Chen's transport stream buffer, discloses adding make-up packets to each encoded

frame as necessary to ensure that each encoded frame has as many transport packets as an

original frame of the selected program, such that the makeup packets are null packets (Chen:

column 7, lines 15-25; column 12, lines 50-67; column 13, lines 1-12), as in the claims.

Regarding claim 83, the Schumann MPEG on-screen display encoder, now incorporating

Chen's transport stream buffer, has wherein the packets are PMT packets (Chen: column 6, lines

45-50), as in the claim.

Regarding claim 84, Schumann MPEG on-screen display encoder, now incorporating

Chen's transport stream buffer, has wherein the buffer comprises a delay buffer (Chen: column

11, lines 25-67; column 12, lines 1-20), as in the claim.

Schumann discloses an MPEG on-screen display encoder (Schumann: column 1, lines

65-67; column 2, lines 1-20), comprising: an MPEG encoder arranged to encode frames of a

selected program with an on-screen display (Schumann: column 4, lines 50-67), as in claim 85.

However, Schumann fails to disclose a make-up packet source for adding make-up packets to

each encoded frame as necessary to ensure that each encoded frame has as many transport

packets as original frames, as specified. Chen discloses a transport processor for splicing a main

stream and an inserted stream (Chen: column 5, lines 5, lines 16-67; column 6, lines 1-33) which

uses a make-up packet source for adding make-up packets to each encoded frame as necessary to

ensure that each encoded frame has as many transport packets as original frames (Chen: column

7, lines 15-25; column 12, lines 50-67; column 13, lines 1-32) in order to prevent discontinuities

such as overflow and underflow considerations in processing multiple streams (Chen: column 1,

lines 55-67; column 2, lines 1-8). Accordingly, given this teaching it would have been obvious

for one of ordinary skill in the art to incorporate the Chen insertion of make-up packets such as

null packets in order to the Schumann on-screen display encoder in order to prevent

discontinuities such as overflow and underflow considerations in handling multiple streams. The

Schumann on-screen display encoder, now incorporating the Chen insertion of make-up packets

such as null packets, has all of the features of claim 85.

Regarding claims 86-87, the Schumann on-screen display encoder, now incorporating

Chen insertion of make-up packets, has where the packets are null packets (Chen: column 7,

lines 15-25; column 12, lines 50-67; column 13, lines 1-15) and PMT packets (Chen: column 6,

lines 40-50), as in the claims.

Schumann discloses an MPEG on-screen display encoder (Schumann: column 1, lines

65-67; column 2, lines 1-20), comprising: an MPEG encoder arranged to encode frames of a

selected program with an on-screen display (Schumann: column 4, lines 50-67); and a

multiplexer arranged to replace original frames with the encoded frames with the encoded frames

for supply to a digital television receiver (Schumann: column 5, lines 50-67: although no

multiplexer is specifically, a multiplexing operation of OSD data and video data is demultiplexed

prior to being sent to the decoder. Accordingly, a multiplexer is inherent, since the reverse

process is performed at the decoder), as in claim 88. However, Schumann fails to disclose a

demultiplexer arranged to demultiplex frames of selected video program from frames of a non-

selected program in a transport stream. Chen discloses a transport decoder which has a

demultiplexer arranged to demultiplex frames of selected video program from frames of a non-

selected program (Chen: column 9, lines 25-65) in order to process the syntax data of the

transport stream prior splicing it with an insertion stream (Chen: column 7, lines 60-67; column

8, lines 1-20). Accordingly, given this teaching, it would have been obvious for one of ordinary

skill in the art at the time of invention to modify Schumann with the Chen demultiplexer in order

to process the syntax of transport stream prior to splicing it with an insertion stream. The

Schumann MPEG on-screen display encoder, now incorporating Chen's transport stream

demultiplexer, has all of the features of claim 88.

7.   Claim 64 is rejected 35 USC 103(a) as being anticipated in view of Schumann et al., (US

Patent 6,078,328: hereinafter referred to as "Schumann") in view of Chen et al., (US Patent

5,917,830: hereinafter referred to as "Chen") and further in view of Douche et al., (US Patent

6,005,629: hereinafter referred to as "Douche").

The Schumann MPEG on-screen display encoder, now incorporating Chen's transport

stream buffer has a majority of the features of claim 64, as was previously discussed above with

regards to claim 62. However, the Schumann-Chen combination fails to disclose a time base

which is slaved to the original frames as in the claim. Douche discloses a time base insertion

module (Schumann: column 4, lines 35-50) which slaves OSD data to the original frames

(Douche: column 4, lines 1-20) in order to avoid synchronization issues (Douche: column 3,

lines 20-35). Accordingly, given this teaching, it would have been obvious for one of ordinary

skill in the art to incorporate the Douche time base insertion module to slave the OSD data to the

original data in order to avoid synchronization issues. The Schumann encoder now incorporating

Chen's transport stream buffer Douche's teaching of slaved time bases, has all of the features of

claim 64.

Allowable Subject Matter

8.   Claims 18-19, 30-31, 39, 48, 58, 66, and 76 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

These dependent claims all recite the step for "...supplying first and second I frame

markers..." which are not anticipated nor obvious over the art of record. Accordingly, these

claims are amended as indicated above, and rejected claims 1, 11, 16-17, 28-29, 32, 37, 42, 46-

47, 56-57 59-62, 64, 70, 74-75, and 81-83 are canceled, the application would be placed in a

condition for allowance.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The

examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
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asr
8/6/06